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ABSTRACT

A new theory of speech acts is proposed that draws a fundamental distinction between speech acts proper--declaratives, interrogatives, and directives--and the myriad social actions that are performed using language such as making promises, making offers, issuing invitations, and asking questions. The theory states that sentences are usally meant literally in conversation, with the social force of an utterance being predictable given (1) the literal meaning of the sentence, (2) contextual information, (3) a set of conditions on social actions, (4) principles governing conversation, and (5) common sense reasoning of a Gricean sort. It is maintained that the principal benefit of this theory is that it provides the basis for predicting what social action a given utterance will perform in a given situation. It is also maintained that sincerity conditions play a role in predicting what social action an utterance is intended to perform, and that social actions are subject to certain conditions that must be satisfied before they can be successfully performed. Requests and indirect speech acts are also considered from the perspective of the new theory. (DJD)

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A New Theory of Speech Acts

by

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KOREAN RECIPROCALS AND LF-MOVEMENT

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1.1 The Korean reciprocal *selo* displays several interesting distributional and interpretive properties. First, *selo* may be interpreted in three different ways (attributed to Yang 1986).

(1) ku twul-i selo-uy ai-lul salanghanta
the two-Nom e.o.-Gen child-Acc love
a. 'The two love each other's children.'
b. 'The two love their own children.'
c. 'The two love their (shared) children.'

The paraphrase (1a) shows that *selo* produces the sense of reciprocity (the reciprocal reading); the paraphrase (1b) shows that *selo* may be interpreted like a reflexive (the respective reading); and the paraphrase (1c) shows that *selo* may be interpreted like a plural pronoun (the joint reading).[1] If the reciprocal *selo* and its antecedent are assigned a θ-role by the same θ-role assigner, however, only the reciprocal reading is obtained.

(2) kutul-i selo-lul topnunta
they-Nom e.o.-Acc help
'They help each other.'

The sentence (2) cannot, for example, mean that they help themselves.

Second, a duplicated form of the reciprocal, i.e. *seloselo* is allowed in Korean as in (3). Interestingly, the duplicated form *seloselo* does not produce the respective reading or the joint reading even in a configuration such as that in (1), i.e. (4).

(3) kutul-i seloselo-lul topnunta
they-Nom e.o.-Acc help
'They help each other.'

(4) ku twul-i seloselo-uy ai-lul salanghanta
the two-Nom e.o.-Gen child-Acc love
a. 'The two love each other's children.'
b. 'The two love their own children.'
c. 'The two love their (shared) children.'

That is, in my judgment, the duplicated form *seloselo* produces only the reciprocal reading in any distributional configuration.

Third, two occurrences of *selo* may appear in a single clause, where one occurrence roughly means 'each' and the other, 'the other(s)'.

(5) kutul-i selo-ka selo-lul top-ki-lul wenhanta
they-Nom each-Nom the other-Acc help-to-Acc want
'They each want to help the other.'

It seems that, when there are two occurrences of the reciprocal in a clause, a division of labor is made between them; one means *each* and the other means *the other*, producing only the reciprocal reading.

Fourth, the reciprocal may co-occur with a morpheme such as *sangtaypang* ('the other') in a single clause.

(6)
kutul-i (selo-ka) sangtaypang-ul top-ki-lul wenhanta
they-Nom each-Nom the other-Acc help-to-Acc want
'They each want to help the other.'

In such a configuration, *selo* always means 'each,' which seems to be another case of an interpretive division of labor. Like (5), only the reciprocal reading is obtained in (6).

Fifth, the reciprocal may co-occur with a distributive morpheme such as *kakkak* ('each') in a single clause.

(7)(?)kutul-i kakkak selo-lul topnunta
they-Nom each the other-lul help
'They each help the other.'

A similar division of labor is made between *selo* and the distributive morpheme *kakkak* ('each'), producing only the reciprocal reading. That is, the reciprocal always means 'the other' in such a configuration.

Japanese reciprocals share all the properties above with Korean. Apart from Japanese, only the first property -- that it may be interpreted in multiple ways -- has a like instance in other languages, e.g. in Italian. That is, the Italian clitic *si* behaves as a reciprocal and as a reflexive.

(8) a. Si amano 'They love one another.'
b. Egli si loda 'He praises himself.'

Selo's peculiarity is emphasized when we consider the fact that all the English examples (9-12) corresponding to (3) and (5-7) are intolerable.

(9) * They help each other each other
(10)* They want each other to help each other
(11)* They want each other to help the other
(12)* They each help each other

Duplicating the reciprocal *each other* is not allowable as in (9); two occurrences of the reciprocal are not allowable in one clause as in (10); the reciprocal is not able to co-occur with *the other* or *each* as in (11-12).

The fact that the Korean reciprocal is different from reciprocals in other languages (in terms of the properties above) raises a question immediately: why is it so? One answer to this question may be that the Korean reciprocal is different from most reciprocals in other languages in the sense that it is a monomorphemic reciprocal with a "flexible" semantics. Since being flexible, it may mean 'each', 'the other', and 'each other,' depending on its context. Alternatively, in such an approach as that taken in Heim, Lasnik, & May (1988), where a component or the whole constituent of a reciprocal is posited to be an

LF-operator, selo's peculiarity may be specified in a different perspective. That is, an LF-operator arising from a multi-morphemic reciprocal binds a single variable in other languages such as English whereas, depending on its context, *selo* may bind one or two variables. Then, we might explain the difference between the Korean reciprocal's distributional behavior and the behaviors of reciprocals in other languages such as English. But these explanations require positing a special way of encoding semantic information (presumably in a fashion like (EACH)(OTHER) under the condition that at least one must be selected), or an additional grammatical device such as a parameter distinguishing the Korean reciprocals and reciprocals in other languages, which are of the easiest, but least explanatory, ways to pursue linguistic research. So, these must be our last resort.

Another alternative way to account for the contrast between Korean reciprocals and those in other languages described above is to assume that Korean has two homophonous *selo*'s, one of which (= *selo1*) behaves roughly like *each* in English, and the other of which (= *selo2*) behaves roughly like *the other(s)* in English. This assumption does not demand any new grammatical devices, which is desirable. The only necessary assumption is that an *each*-type lexical item and a *the other*-type lexical item share the same phonological entry by chance, which is not of a high cost. If other things are equal, then, this analysis is much preferable from a theoretical point of view. We will pursue this third alternative in the following section.

1.2 If Korean has *selo1* ('each') and *selo2* ('the other'), it follows that a genuine reciprocal in Korean is *selo1selo2*, although it has been considered to be a duplication of the reciprocal *selo*. A genuine reciprocal is simply meant to be a reciprocal such as *each other* in English which consists of two overt morphemes carrying a semantic statement, as discussed in section 2.2 below. This consequence is in harmony with the second property described above, that is, that *seloselo* displays only the reciprocal reading. Further, the validity of the consequence is attested by the following data[2]:

(13)
* kutul-i seloselo-ka seloselo-lul top-ki-lul wenhanta
they-Nom e.o.-Nom e.o.-Acc help-to-Acc want
\# 'They want each other to help each other.'
(14)
* kutul-i seloselo-ka sangtaypang-ul top-ki-lul
wenhanta
they-Nom each-Nom the other-Acc help-to-Acc
want
\# 'They want each other to help the other.'
(15)
* kutul-i kakkak seloselo-lul topnunta
they-Nom each e.o-lul help
\# 'They each help each other.'

The examples (13-15) are like (5-7) except *selo* is replaced with *seloselo*. That is, *seloselo* cannot appear in configurations where *selo* is possible along with an interpretive division of labor. Such configurations are exactly those whose English counterparts would not allow English reciprocals to appear. In other words,

Korean *seloselo* and English *each other* both are not allowed to produce such an interpretive division of labor, which Korean *selo* enjoys.

Under the hypothesis that Korean has the homophones, *selo1* and *selo2*, the third - fifth properties of *selo* are also no more peculiar than the second one. As we argued in the preceding paragraph, *seloselo* in (3-4) is not a duplication of the reciprocal *selo*, rather a genuine reciprocal *selo1selo2*. In (5), one is *selo1*, and the other is *selo2*.[3] So, the apparent division of labor in interpretation is not a mere "division of labor" among occurrences of a single lexical item. Rather, the two are distinct lexical items. *Selo* in (6) is *selo1*, which we assume to behave like English *each*, and so it must be semantically compatible with such a morpheme as *sangtaypang* ('the other'), producing the meaning of reciprocity. Mutatis mutandis *selo* in (7) is *selo2*, behaving like English *the other*, which must be compatible with *kakkak* ('each'), again producing the sense of reciprocity.

In the present system, such examples as (1-2), which led Korean linguists to assume that *selo* is a reciprocal, however, will resist an immediate account, because a single, unduplicated occurrence of *selo* creates a perfect sense of reciprocity in (1-2). This fact seems to be contradictory to our hypothesis under which neither *selo1* nor *selo2* can give rise to the sense of reciprocity by itself. But this seeming contradiction disappears if we elaborate the internal structure of *selo* in (1-2). In recent linguistic literature such as Choe (1987) and Roberts (1987), the existence of a silent distributive operator, *D*, was proposed to provide an account for the source of the distributivity in cases like the following (Roberts 1987, p. 219):

(16) The women from Boxborough brought a salad

(16) may have a reading saying that each of the women brought a salad. Roberts (1987) proposed that an implicit adverbial operator *D*, which behaves like the adverbial *each*, is responsible for the reading of distributivity in (16). If we adopt such a line of explanation as Roberts' and assume the existence of an distributive operator D, then there is no reason to block the interplay of the D operator and *selo2*. We thus assume that *selo* in (1-2) is a multi-morphemic item, namely, [D selo2]. Then, examples (1-2) are subsumed under our system in a straightforward way.

For the first property displayed in (1), however, our present hypothesis provides only a partial explanation. The reciprocal [D selo2] bears the responsibility for the reciprocity in the reading (1a) and *selo1*, for the respective reading (1b). If the reading (1c) is a real case of ambiguity with respect to (1a-b), our present logic demands that a third homophone *selo3* be assumed. But the joint reading's status as an ambiguous case is dubious.[4] So, for the moment, we assume that the joint reading is a fuzzy case. Now, we will move onto other important paradigms of examples.

2.1 Consider the following:

(17)
a. [A-wa B]$_1$-ka kutul$_1$-i selo$_1$-lul cohahanta mitnunta
and Nom they-Nom e.o.-Acc like believe

b. [A-wa B]$_1$-ka cakitul$_1$-i selo$_1$-lul cohahanta mitnunta
selves

c. [A-wa B]$_1$-ka [e]$_1$ selo$_1$-lul cohahanta mitnunta
'A and B think they like each other.'

(18)
a. [A-wa B]$_1$-ka selo$_1$-eykey kutul$_1$-i ttena.yahanta-ko malhayssta
and Nom e.o.-to they-Nom leave-should-Comp said

b. [A-wa B]$_1$-ka selo$_1$-eykey cakitul$_1$-i ttena.yahanta-ko malhayssta
selves

c. [A-wa B]$_1$-ka selo$_1$-eykey [e]$_1$ ttena.yahanta-ko malhayssta
'A and B said to each other that they should leave.'

In (17), there is a sharp contrast between (17a) and (17b-c). (17a) may only have the reading that A and B have the same thought that A and B like each other (the "we" reading).[5] On the contrary, (17b-c) may have not only the reading that (17a) can have, but also the reading that A thinks he likes B and B thinks he likes A (the "I" reading). In the latter reading, A has a thought different from the one B has. Since the only difference between (17a) and (17b-c) is that (17b-c) have a reflexive *cakitul* ('selves') or an empty category in the position which *kutul* ('they'), an overt pronoun, takes in (17a), the contrast in possible readings between (17a) and (17b-c) must come from a certain difference between properties that overt pronouns have versus those that reflexives and empty categories have.

A similar contrast can be observed in (18) where the reflexive *cakitul* or an empty category takes in (18b-c) the position which the pronoun *kutul* takes in (18a).[6] (18a) can have the "we" reading that A said to B, and B said to A, "We should leave," or the "other folk" reading that A said to B, and B said to A, "They (e.g.,C and D) should leave." On the contrary, (18b) may have the "we" reading and the "I" reading that A said to B, and B said to A, "I should leave." (18c) may have the "you" reading that A said to B, and B said to A, "You should leave.", as well as the "we" reading and the "I" reading. The reason why (18b) may not have the "you" reading may be found in an independent condition. Many works on Korean reflexives, for example, Yang (1986), have shown that, although there may be a dialectal difference, the Korean reflexive *caki* ('self') generally takes only a subject NP as its antecedent. The "I" and "you" readings involve a *bound variable* anaphora where the reflexive and the empty category in (18b-c) are interpreted as bound variables. On the contrary, the "we" reading involves only a *coreference* relation, for example, between the pronoun in (18a) and its antecedent. (See Heim, Lasnik, & May 1988 for a more

detailed discussion on this.) When we focus on availability of readings such as the "I" reading which involves a bound variable anaphora, the contrast between (18a) and (18b-c) in the paradigm in (18) must come from a difference between overt pronouns versus reflexives and empty categories.

Hong (1985) observes a distributional difference in Korean between overt pronouns on the one hand and reflexives and empty categories on the other. That is, an overt pronoun cannot behave as a variable, which is to be bound by a wh-operator or a quantifier, whereas reflexives and empty categories can. This is displayed in (19). To account for such paradigms as that in (19), Hong proposes the Constraint on Pronominal Binding (=CPB), which is reproduced in (20) (Cf. Montalbetti 1984.):

(19) a. * nwukwu$_1$-ka ku$_1$-ka ttokttokhata-ko malhani?
who-Nom he-Nom smart-be-Comp says

b. nwukwu$_1$-ka caki$_1$-ka ttokttokhata-ko malhani?
who-Nom self-Nom smart-be-Comp says

c. nwukwu$_1$-ka [e]$_1$ ttokttokhata-ko malhani?
who-Nom e smart-be-Comp says
'Who$_1$ says he$_1$ is smart?'

(20)
a. An overt pronominal must be (locally) A'-free at LF.
b. X locally binds Y if X binds Y and there is no Z such that X binds Z and Z binds Y (Chomsky 1986).

In (19a) the overt pronoun *ku*$_1$ is bound by the wh-operator *nwukwu*$_1$ ('who'), and so the representation (19a) is ruled out by (20). On the contrary, (19b-c) do not involve any such violation. To my knowledge, the CPB is the only grammatical condition partitioning the overt pronouns on the one hand and the reflexives and empty categories on the other. However, there is no way for the CPB to account for the contrasts shown in (17-18) as matters now stand. But we will come back to this issue immediately after we consider one interesting proposal on reciprocals.

2.2 Heim, Lasnik, & May (1988) assume that a reciprocal semantically consists of a statement of distributivity and a statement of disjoint reference. In many cases, the two statements are carried by distinct morpho-syntactic elements. In English, for example, *each* carries the statement of distributivity and *other* carries the statement of disjoint reference. They call such an element as *each* a distributor, and such an element as *other* a reciprocator. Then, they propose that the distributor (e.g. *each*) moves out of a reciprocal (e.g. *each other*) at LF and attaches to its "antecedent" in order to account for paradigms including the following (Cf. Lebeaux 1983 and Chomsky 1986.):

(21)
a. # They were taller than each other
b. J and B thought they were taller than each other

(22)
a.# I due pensano [di essersi battuti]
the two thought be e.o. beaten

b. I due pensano [di avere prevalso l'uno sull'altro]
the two thought have prevailed the one over the other
'The two thought they had defeated each other.'

(21a) is a semantically contradictory claim. If (21a) is embedded in another clause as in (21b), however, something curious happens. That is, although (21b) may have the contradictory "we" reading, in addition it may have the "I" reading, which involves non-contradictory thoughts, that J thought he was taller than B and B thought he was taller than J. The Italian examples in (22), from Heim, Lasnik, & May (1988), form a further interesting paradigm. In (22a), where the clitic reciprocal *si* is used, the sentence may only have the "we" reading which involves the contradictory thought, whereas (22b), where the non-clitic, morphologically complex, reciprocal *l'uno ... l'altro* is used, may have both the "we" reading and the "I" reading as (21b) does.

In Heim, Lasnik, & May's system, the ambiguous readings in (21b) are accounted for in terms of the scope of *each* at LF. First, when *each* has attached to one of its antecedents, the LF-representations of (21b) will look like (23); and when Index Sharing has applied, they will look like (24). As shown in (24), an index is composed of a pair of slots: the first slot contains a "distributive" (or more generally, "quantificational") index, and the second contains a referential index. This does not mean that both slots must always be filled in. So, if a slot is empty, then it may be provided an integer under certain conditions even at LF. One more technical specification is in order. If both slots of an index are filled in, the "distributive" index represents the whole index. Consequently, an operator with the index *1/3* may bind a variable with the index *1*.

(23) a. $They_3$ thought $[[they]_3$ $each1]_3$ were taller than $[t_1$ $other_2]_2$

b. $[[They]_3$ $each_1]_3$ thought $they_3$ were taller than $[t_1$ $other_2]_2$

(24) a. $They_3$ thought $[[they]_{1/3}$ $each_1]_{1/3}$ were taller than $[t_1$ $other_2]_2$

b. $[[They]_{1/3}$ $each_1]_{1/3}$ thought $they_{1/3}$ were taller than $[t_1$ $other_2]_2$

If *each*'s scope at LF comprises only the embedded clause as in (24a), it produces the "we" reading, which contains the contradictory thought shown in (21a). If *each*'s scope at LF comprises the whole clause as in (24b), however, it produces the "I" reading involving the two non-contradictory thoughts. On the other hand, the reason why (22a) cannot have the "I" reading is that the clitic reciprocal does not have a morpho-syntactic element such as *l'uno*, which carries the statement of distributivity, and to which QR, a syntactic operation, can apply.

Basically the same paradigms as those including (21) are observed in Korean.

(25)
a. # A-wa B-ka selo-lul ikiessta
-and -Nom e.o.-Acc defeated
'A and B defeated each other.'

b. A-wa B-ka [e] selo-lul ikiessta-ko mitessta
-and -Nom e.o.-Acc defeated-Comp believed
'A and B believed they defeated each other.'

(25a) has only the contradictory reading. (25b) may produce the "I" reading as well as the "we" reading. (Such a paradigm as shown in (25) is obtained as long as an overt pronoun is not used as the binder of the reciprocal.) This resemblance between the paradigms in Korean and those in other languages such as English and Italian indicates that we may adopt Heim, Lasnik, & May's approach in accounting for Korean reciprocals' paradigms with no additional cost in theory.[7]

2.3 Given that *selo1* (or *D* in the case of *D selo2*) attaches to its antecedent at LF, a way is paved to an explanation of the contrasts, observed in (17-18) above, between the behavior of overt pronouns and that of reflexives or empty categories. That is, when *D* out of [D selo2] in (17-18) attaches to the antecedent of the reciprocal, namely *A-wa B* ('A and B'), [[A-wa B] D], the newly created constituent, must behave like a quantifier. Recall that Heim, Lasnik, & May assume that the distributor assigns its "distributive" index to its antecedent, and that the distributive index represents the whole constituent's index. Then, it follows that the whole constituent [[A-wa B] D] undergoes a further LF-movement and attaches to an A'-position, presumably S in (17-18). Then, the reason why (17a) and (18a) cannot have the "I" reading, which (17b-c) and (18b-c) may have, follows from Hong's CPB in (20). That is, in cases where (17a) and (18a) would produce the "I" reading, the overt pronoun *kutul* ('they') violates the CPB since the "I" reading is obtainable only when the pronoun is A'-bound by [[A-wa B] D].

The only fact, out of those described above, of *selo* left unexplained is the generalization with respect to the first property: if a reciprocal and its antecedent are assigned a θ-role by the same θ-role assigner, then it cannot produce a non-reciprocal (respective or joint) reading.[8] Since we are assuming that Korean has two *selo*'s, i.e. *selo1* and *selo2*, the generalization may be restated as follows: in such a configuration as that where *selo* and its antecedent receive a θ-role from a single θ-role assigner, *selo1* is impossible. (Recall that *selo1*, when it comes alone, produces the respective reading in sentences like (1).) This generalization is quite reminiscent of the Condition B of the Binding Theory, which states that a pronominal must be A-free in its governing category. In this respect, as Mamoru Saito (p.c.) pointed out, we may restate the generalization as follows: *selo1* behaves like a pronominal, when it comes alone.

Thus far, we have assumed that *selo1* behaves like a quantifier. To harmonize this assumption with the generalization stated in the previous paragraph, I would like to tentatively propose that, when *selo1* comes alone, it is accompanied by an empty category *pro*, under the condition that *pro* is identified

by *selo1*. The constituent of *selo1* and *pro* will look like [selo1$_1$ pro$_1$]. Then we may subsume examples like (2) under Condition B, because in (2) *pro* is bound by [[kutul] selo1] (or more correctly by its trace) at LF.[9]

Let us examine (2), again. (2) is repeated as two representations in (26) with indices added.

(26) a. * kutul$_3$-i [selo1$_1$ pro$_1$]-lul topnunta
'They help themselves.'

b. kutul$_3$-i [D$_1$ selo2$_2$]-lul topnunta
'They help each other.'

In (26), *selo1* and *D* will attach to their antecedent *kutul*, and they will assign their index *1* to *kutul* at LF. When it happens, the LF-representations of (26) will be (27):

(27) a. [[kutul]$_{1/3}$ selo1$_1$]$_{1/3}$-i [t$_1$ pro$_1$]-lul topnunta

b. [[kutul]$_{1/3}$ D$_1$]$_{1/3}$-i [t$_1$ selo2$_2$]-lul topnunta

In (27a) the whole constituent [[kutul] selo]$_{1/3}$ binds not only the trace of *selo1* but also *pro*$_1$, where *pro*$_1$ violates Condition B of the Binding Theory. This is the reason why (2) cannot produce the respective reading. On the other hand, (27b) does not violate any condition, producing the reciprocal reading of (2).

The occurrence of *selo1* in (26) stands in contrast to the occurrence of *selo1* in (28a), one of whose LF's will look like (28b):

(28) a. kutul-i selo1-ka chencayla-ko mitnunta
they-Nom each-Nom genius-be-Comp believe
'They believe themselves to be geniuses.'

b. [[kutul] selo1]-i [t pro]-ka chencayla-ko mitnunta

[[kutul] selo1] in (28a) binds *pro*, but it is not in *pro*'s governing category, namely, the embedded clause. So, *pro* in (28) does not violate Condition B.

3 In this paper, I have attempted to show that, if we assume that Korean has two homophonous *selo*'s, four of the five peculiar properties displayed by the Korean reciprocal *selo* are accounted for immediately, and that contrasts such as those shown in (17) and (18) and the generalization on (2) follow from the interplay of a general operation such as the distributor's LF-movement proposed by Heim, Lasnik, & May (1988), the Binding Theory, and a language-specific constraint such as Hong's (1985) Constraint on Pronominal Binding.

FOOTNOTES

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1. We adopt Yang's (1986) terminologies for the three readings here. Two comments are in order with respect to the examples given in the text. First, in transliterating Korean examples into Roman alphabet, the Yale system, which is explicated in Martin, Lee, & Chang (1967), is used. Since the system maps Korean *alphabet* into Roman alphabet and combinations of some of its elements, the transliterations in the paper do not necessarily display accurate phonetic forms of the examples. More accurate phonetic forms of consonants will be obtained if some phonological rules such as the following are applied:

```
R1.  [+consonant] → [+voiced]/[+voiced]___[+voiced]
R2.  l → r/[+vocalic]___[+vocalic]
R3.  ss → [-continuant]/___] (where ']' is 'syllable boundary')
R4.  [+consonant] → [+nasal]/___[+nasal]
R5.  [-continuant] → [+tense]/[-continuant]___
```

R3 applies prior to R5. Tense consonants are represented as the duplicated forms of corresponding lax consonants. As for vowels, the following are feature specifications of vowels relevant to our examples.

	i	ey	ay	u	e	wu	o	a
[back]	-	-	-	+	+	+	+	+
[high]	+	-	-	+	-	+	-	-
[low]	-	-	+	-	-	-	-	+
[round]	-	-	-	-	-	+	+	-

When *y* or *w* appears between two vowels, a dot (.) is inserted to indicate which side it belongs to, following Lee (1968). Second, in the glosses of the examples, 'Nom' = 'nominative Case marker', 'Acc' = 'accusative Case marker', 'Gen' = 'genitive Case marker', 'Comp' = 'complementizer', 'e.o.' = 'each other', and irrelevant morphological details are not specified.

2. There are native speakers of Korean who do accept examples like (13)-(15). Presumably, they accept such examples by interpreting *seloselo* as a duplicated form of *selo*. This is conceivable since Korean contains many duplicated forms especially in the class of ideophone. One crucial property of such duplicatable morphemes is that they may even be triplicated. Thus, our prediction is that native speakers who accept (13)-(15) would accept sentences which are like (13)-(15) except *seloselo* is replaced with *seloseloselo*. This prediction seems to hold.

3. Arguably, we can imagine that some semantic constraints, which would be independently motivated to constrain the distribution of such lexical items as *kakkak* ('each') and *sangtaypang* ('the other'), will ban the combined occurrence of [selo1, selo1] and [selo2, selo2] in a single clause. See Ahn (1988) for a more detailed discussion.

4. Many Koreans I consulted and I myself don't get the joint reading, even though there are Koreans who obtain the reading. As Yongkyoon No and Mamoru Saito (p.c.) suggested, the joint reading may be derived from the recip-

rocal or respective reading in a situation where the antecedent of *selo*, for example, denotes a couple.

5. Here we adopt Heim, Lasnik, & May's (1988) terminologies, such as the "we" reading.

6. (18a) is the Korean equivalent to the example (i), discussed first by Higginbotham (1985).

(i) They told each other they should leave

7. One indirect motivation for Heim, Lasnik, & May's LF-movement theory of reciprocals is the fact that in English, for example, constructions like *each of them* and *they each* are found in examples like the following:

(i) Each of them loves the others.
(ii) They each love the others.

Actual syntactic constructions like these make conceivable such a hypothesis as Heim, Lasnik, & May's, which states that a similar construction may be formed by a syntactic operation in the syntactic level of LF. In Korean, too, such constructions are found:

(iii) kutul selo1-ka selo2-lul salanghanta
'Each of them loves the other.'

(iv) kutul-i selo1 selo2-lul salanghanta
'They each love the other.'

8. This generalization has one exception involving the verb *sokayha-* ('to introduce') as in (i):

(i) A-wa B-ka selo-lul Bill-eykey sokayha-ess-ta
-and -Nom e.o.-Acc -to introduce-Past-Dec
'A and B introduced themselves/ each other to Bill.'

As shown in its paraphrase, (i) may not only have the reciprocal reading but also the respective reading. The generalization in question, however, seems to generally hold in Korean still. For example, consider (ii).

(ii) A-wa B-ka selo-eykey chayk-ul chwu-ess-ta
-and -Nom e.o.-to book-Acc give-Past-Dec
'A and B gave a book to each other/*themselves.'

The sentence in (ii) cannot have the respective reading saying that A and B gave a book to themselves.

It might be also possible to reformulate the generalization so that it might state that *selo1* may not appear only in the object position of a verb which has a single object position. In other words, it might be said that *selo1* may appear inside VP in a double object construction. In this reformulated version, however, it have to be explained why sentences like (ii) do not allow the respective reading. This task, presumably, may be done by means of some pragmatic plausibility conditions which might include a statement that it is not plausible that an individual gives something to himself. In this alternative, sentences like (ii) produces

both the reciprocal reading and the respective reading, but the latter is not pragmatically plausible, hence not acceptable. In either alternative, we have no explicit and thorough explanation right now.

9. One alternative way will be to revise Rothstein's (1985) condition on θ-assignment, which is repeated in (i) below.

(i) Any two θ-roles θ_1 and θ_2 cannot be assigned to the same NP if and only if the α that selects θ_1 also selects θ_2.

Suppose that we modify the condition by replacing 'assigned' with 'related,' where a θ-role may be related to α by being directly assigned to α or by an adjunction of its bearer to α. Then, *kutul* ('they') in (2) violates the modified version of (i) at LF. Another alternative is to posit a condition on Index Sharing, analogous to (i):

(ii) A distributive index of α cannot be shared with β if α and β are θ-marked by a single θ-role assigner.

(ii) would prohibit *selo1* in (2) from sharing its index, with *kutul*. The consequence will be that in (2) the constituent [[kutul] selo] which will appear at LF may not be properly interpreted as an operator. Which way is the best is an open question.

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